



1. Application details

1.1. Permit application details

Permit application No.: 509/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Water Corporation

1.3. Property details

Property: LOT 330 ON PLAN 36427 (QUINNINUP 6258)
Local Government Area: Shire Of Manjimup
Colloquial name: Quinninup Transfer Main - Karri Lane and Rainbow Trout Retreat road reserves.

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.54		Mechanical Removal	Building or Structure

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard: Unit 1144 Tall forest; karri & marri (<i>Corymbia calophylla</i>)</p> <p>Mattiske: Cry Crowea - Tall open forest of <i>Corymbia calophylla</i> with mixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Eucalyptus diversicolor</i> on uplands in hyperhumid and perhumid zones.</p> <p>WH1 Wheatly - Tall open forest of <i>Eucalyptus diversicolor</i>-<i>Corymbia calophylla</i> on slopes and tall open forest of <i>Eucalyptus patens</i> on valley floor in perhumid and humid zones.</p>	<p>The vegetation under application was cleared in 1992 when the original tank and subdivision were constructed (pers comm. Environmental Scientist, Water Corporation). The understorey in these areas is significantly altered and less dense and diverse than the surrounding bush. There is an absence of large trees within these areas. The vegetation is considered to be in Very Good (Keighery BJ, 1994) condition as the vegetation has begun to regenerate and would continue to do so, particularly within the southern most area away from the residential blocks, if left undisturbed.</p> <p>Species observed include: Overstorey - Marri (<i>Corymbia calophylla</i>), jarrah (<i>Eucalyptus marginata</i>), Karri (<i>Eucalyptus diversicolor</i>); Midstorey - Acacia <i>pulchella</i>, Karri Hazel (<i>Trymalium floribundum</i>); Understorey - <i>Hibbertia pilosa</i>, <i>Leucopogon verticillatus</i>, <i>Lasiopetalum florabundum</i>, Bracken Fern (<i>Pteridium esculentum</i>).</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p>	<p>Site visit report undertaken on the 14th July 2005.</p>

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments **Proposal is not likely to be at variance to this Principle**

The vegetation under application was cleared in 1992 when the original tank and subdivision were constructed (pers comm. Environmental Scientist, Water Corporation). The current application includes this regrowth area (ie there are no mature trees within the proposed area). This vegetation will be allowed to regenerate once works have been carried out.

A site visit (DoE 2005) undertaken in July confirmed that the vegetation under application was not an area of high biological diversity as it had been cleared in the past. Surrounding vegetation, within the Greater Dordagup National Park, is considered to be an area of high biodiversity. The area under application is a relatively small area and is not expected to adversely effect the biodiversity values of the surrounding vegetation.

The proposal is subject to conditions to manage potential dieback (*Phytophthora cinnamomi*) introduction and spread of weeds. These conditions aim to minimise impacts on surrounding vegetation.

Methodology Environmental Scientist, Water Corporation pers comm. (2005)
DoE site visit (2005)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal is not likely to be at variance to this Principle**

CALM report (2005):

'Species known to occur in the local area (10km radius) (based on CALM's Threatened and Priority Fauna Database):

- Chuditch, *Dasyurus geoffroi* 'Vulnerable' - (State) Wildlife Conservation Act and (Federal) Environment Protection and Biodiversity Conservation Act.
- Southern Brush-tailed Phascogale, *Phascogale tapoatafa tapoatafa* Priority 3
- Forest Red-tailed Black Cockatoo, *Calyptorhynchus banksii naso* P3'

'Fauna likely to occur in the local area (10km radius) (Zoologist/ Region) and habitat requirements:

- Baudin's Black Cockatoo, *Calyptorhynchus baudinii* 'Endangered' (State) Wildlife Conservation Act and (Federal) Environment Protection and Biodiversity Conservation Act.
- Western Ringtail Possum, *Pseudocheirus occidentalis* 'Vulnerable' (State) Wildlife Conservation Act and (Federal) Environment Protection and Biodiversity Conservation Act.
- Tamar Wallaby, *Macropus eugenii derbianus*, Priority 5
- Quenda, *Isodon obesulus fusciventer*, Priority 5

'The Environmental Impact Assessment submitted as supporting documentation to the purpose permit application lists eight species of significant fauna that may occur within the survey area (Mal Graham Environmental Services 2004 section 2.4). The data was extracted from CALM datasets and limited to the area within a 10km radius of the site. Note is then made in Section 3.4 that only one of these has been confirmed by an actual sighting, namely a Chuditch in Quininup in 1989.'

'Analysis of the current CALM significant fauna database, however, shows six records of three species of Significant fauna (Chuditch, Forest Red-tailed Black Cockatoo and Southern Brush-tailed Phascogale) actually occurring within the 10km radius, between 1989 and 1999. Five of the six records are confirmed by actual sightings. Sightings of Baudin's Black Cockatoo Quenda and Western Ringtail Possum just outside the 10km buffer are also confirmed.'

'The Forest Red-tailed Black Cockatoo is dependant on the mature jarrah-marri forest of the south west. Jarrah and marri are present within the area under assessment (DoE site report 2005). Provided the clearing is limited to previously disturbed areas and mature trees are avoided, the habitat that this species of Cockatoo requires is unlikely to be significantly effected. Photographs provided on behalf of Mal Graham Environmental Services 2004, and as part of the DoE site report, confirm that it is proposed to install the transfer main on (predominantly) previously disturbed ground, however it is not clear how much further the clearing will extend into undisturbed vegetation at either side of the pipe-line route.'

'The other Specially Protected and Priority Listed fauna listed above may utilise area that is proposed to be cleared however provided the new pipeline is confined (predominantly) to the area previously disturbed, the proposal is not likely to be at Variance to this Principle.'

Methodology CALM report (2005).
GIS database:

- Threatened and Priority fauna - CALM (CALM 2004)*.

*This citation signifies that we do not have access to this database and that our use of it is through the CALM

advice provided.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

- Comments** **Proposal is not likely to be at variance to this Principle**
CALM report (2005):
'Species known to occur in the local area (10km radius) (based on CALM's Threatened Flora Data Management System (DEFL) and/or CALM District Records):
- One population of *Marianthus sylvaticus*, Priority 3'

'Species known to occur in the local area (10km radius) (based on CALM's Herbarium Specimen Collection Database (WAHerb)):
- One population of *Caladenia winfieldii*, Declared Rare Flora (DRF)
- One population of *Kennedia glabrata*, DRF
- One population of *Marianthus sylvaticus*, Priority 3'

'Two taxa of DRF are known to occur in the local area. *Caladenia winfieldii* favours grey sandy loam, rich in humus, in winter wet areas along seasonal creeks; it grows under low woodland of flooded gum (*Eucalyptus rudis*), modong (*Melaleuca preissiana*) and swamp banksia (*Banksia littoralis*) (CALM 1998). *Kennedia glabrata* inhabits shallow pockets of soil on granite outcrops, in association with herbs and mosses (CALM 1998).'

'Information and photographs submitted on behalf of the proponent (Mal Graham Environmental Services 2004) and also photographs and notes from the DoE site visit report (2005), presents no evidence of winter wet areas and low woodland that is likely to support *Caladenia winfieldii*, nor is there evidence of granite outcrops where *Kennedia glabrata* might be expected to occur.'

'The proposed clearing is within 300m of a Phytophthora disease risk area (CALM Corporate Data 2004). Provided that adequate safeguards and hygiene measures are adopted by the proponent in order to avoid the spread of weeds and Phytophthora, the proposal is not likely to be at variance to this Principle.'
- Methodology** CALM report (2005).
GIS databases:
- Herbarium Specimen Collection Database - CALM (CALM 2004)*
- Threatened Flora Data Management System - CALM (CALM 2004)*.
*This citation signifies that we do not have access to this database and that our use of it is through the CALM advice provided.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

- Comments** **Proposal is not at variance to this Principle**
CALM report (2005):
'There is no evidence to suggest that any Environment Protection and Biodiversity Conservation Act listed Threatened Ecological Communities of State listed Threatened Ecological Communities are present on the site of the proposed clearing. The proposed clearing is not likely to be at variance to this Principle.'

There are no occurrences of Threatened Ecological Communities or Threatened Plant communities within the local area (10km radius).
- Methodology** CALM report (2005).
GIS database:
- Threatened Ecological Communities - CALM 15/7/03
- Threatened Plant Communities - DEP 06/95

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

- Comments** **Proposal is not at variance to this Principle**
There is approximately 80% of vegetation remaining in the local area (10km radius).

The Warren IBRA Bioregion*** had a Pre-European extent of 836 270 ha*. The current extent is 724 014 ha* being 86.6%* remaining with a Conservation status of Least Concern**.

The Shire of Manjimup had a Pre-European extent of 705 670 ha*. The current extent is 591 748 ha* being 83.9%* remaining with a Conservation status of Least Concern**.

Beard Unit 1144 had a Pre-European extent of 201 257 ha*. The current extent is 140 235 ha* being 69.7%* remaining with a Conservation status of Least Concern**.

Mattiske vegetation type Cry Crowea had a Pre-European extent of 337 605 ha*. The current extent 236 268 ha* being 70%* remaining with a Conservation status of Least Concern**.

Mattiske vegetation type WH1 Wheatly had a Pre-European extent of 183 280 ha*. The current extent 142 945 ha* being 78%* remaining with a Conservation status of Least Concern**.

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

*** Within the Intensive Landuse Zone

The vegetation types within the area under application are well represented (Least Concern, Department of Natural Resources and Environment (2002)). Additionally, the vegetation under application was cleared in 1992 when the original tank and subdivision were constructed (pers comm. Environmental Scientist, Water Corporation 2005). The current application is for this regrowth area (i.e. no mature vegetation is within the proposed area). This vegetation will be allowed to regenerate once works have been carried out (Environmental Scientist, Water Corporation pers comm. 2005).

The proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Environmental Scientist, Water Corporation pers comm. (2005)
Havel (2002)
Hopkins et al. (2001)
Shepherd et al. (2001)

GIS databases:

- Mattiske Vegetation - CALM 24/3/98
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation - DA 01/01

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is not at variance to this Principle

There are no watercourses or wetlands within the area under application. A minor perennial watercourse (1st order) is located 113m north of the area under application.

The proposed clearing is not at variance to this Principle.

Methodology GIS databases:
- Hydrography Linear - DoE 1/2/04

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not at variance to this Principle

The area under application is a small area that was previously cleared in the past (in 1992 when the original tank and subdivision were constructed (pers comm. Environmental Scientist, Water Corporation, 2005)).

There is no information for Acid Sulphate Soils on the property. Groundwater salinity is mapped at 500 - 1000 mg/L. Salinity is mapped at a low risk area.

The proposed clearing is not at variance to this Principle.

Methodology Environmental Scientist, Water Corporation, (2005)
GIS databases:
- Salinity Risk LM 25m - DOLA 00.
- Groundwater Salinity, Statewide - 22/02/00

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal is not likely to be at variance to this Principle

The area under application is within Tone State Forest and is part of the Shannon Area (Registered National Estate).

Sir James Mitchell National Park is 1.9km south west and Executive Director Freehold land is 940m north west of the area under application.

CALM report (2005):

'Part of the area that is proposed to be cleared ie the track to the water tank at the most southerly point under application, is within the Greater Dordagup National Park (legislation introduced in 2004). Although the vegetation was previously cleared in 1992 when the tank was constructed it has since begun to regenerate and is considered to be Very Good condition Keighery BJ 1994) (Department of Environment site visit report 2005). Given that this area covers approximately 0.18 ha and has undergone prior disturbance, the proposed clearing is likely to have minimal impact on the environmental values of the national park.'

'The proposed clearing is within 300m of a Phytophthora disease risk area (CALM Corporate Data 2004). Provided that adequate safeguards and hygiene measures are required of and adopted by the proponent (in order to avoid the spread of Phytophthora) and that work is undertaken in such a way to minimise disturbance to regeneration vegetation the proposal is not likely to be at variance to this Principle.'

Methodology CALM report (2005)
GIS database:
- CALM Managed Lands and Waters - CALM 1/06/04
- Register of National Estate - EA 28/01/03

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal is not at variance to this Principle

The area under application is within a CAWS Clearing Control Catchment being the Quinninup Dam Catchment Area (Water Source Protection Plan Policy Use P1).

The area under application is within a high rainfall, medium evaporation rate and well drained area. The groundwater salinity is low and salinity risk is low in the area.

The vegetation will be allowed to regenerate once works have been carried out (Environmental Scientist, Water Corporation pers comm. 2005).

The proposed clearing is not at variance to this Principle.

Methodology Environmental Scientist, Water Corporation pers comm. (2005) Water Corporation.
GIS databases:
- CAWSA Part2A clearing control catchment - DoE 17/11/05
- Evaporation Isopleth - BOM 09/98
- Hydrogeology, statewide - WRC 05/02/02
- Hydrographic Catchments, Catchments - DoE 3/4/03
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, statewide - DA 11/99

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not at variance to this Principle

Due to the scale of the proposed clearing, flooding impacts are unlikely to occur.

Methodology GIS database:
- Pemberton 1.4m Orthomosaic - DOLA 99

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The property is zoned State Forest.

The proposal is subject to conditions to manage potential dieback (*Phytophthora cinnamomi*) infestation and spread of weeds. These conditions aim to minimise impacts on surrounding vegetation.

The vegetation under application was cleared in 1992 when the original tank and subdivision were constructed (Environmental Scientist, Water Corporation pers comm., 2005). The current application is for this regrowth area (i.e. no mature vegetation is within the proposed area). This vegetation will be allowed to regenerate once works have been carried out (Environmental Scientist, Water Corporation pers comm., 2005).

The Shire of Manjimup stated that they were in support of the proposed clearing providing it was the same area cleared in the past. Discussions with Environmental Scientist, Water Corporation from Water Corporation have confirmed that it is the same area.

Methodology Environmental Scientist, Water Corporation pers comm. (2005)
 GIS database:
 - Town Planning Scheme Zones - MFP 8/98.

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Building or Structure	Mechanical Removal	0.54	Grant	It is recommended that the Clearing Permit be granted as it is not at variance to any of the Clearing Principles.

5. References

- CALM Land clearing proposal advice (2005). Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref IN24079.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales ; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Havel, J.J. and Matiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DoE)